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ABSTRACT

The relationship between classroom seating preference and personality was explored. Subjects were 81 undergraduate students. Using the same 32-seat classroom, four classes were tested. Students were administered Cattell's 16 PF followed by another questionnaire which contained a diagram of the classroom, and students were asked to indicate their occupied seat. If the occupied seat was not the preferred seat, students were also asked to indicate the preferred seat. Each seat was assigned a zone of participation (ZP) value. Using a Spearman rank-order correlation statistic, ZP values and row choices were correlated with Cattell's Primary and Second Order Factors. Results indicate that row choice was related to extroversion, tough poise, shrewdness, dominance, and ego strength. Also, students sitting toward the center differed on ego strength, guilt-proneness, and anxiety, relative to students sitting away from the center. (Author/JLL)

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AN EXPLORATION OF CLASSROOM SEATING AS A FUNCTION OF VARIOUS PERSONALITY TRAITS [1]

by

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ABSTRACT

This experiment explored the relationship between classroom seating preference and personality. Using Cattell's 16PF, results indicated that row choice was related to extraversion, tough poise, shrewdness, dominance, and ego strength. Also, students sitting toward the center differed on ego strength, guilt proneness, and anxiety from students sitting away from the center.

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1. Title: An exploration of classroom seating as a function of various personality traits.

2. Problem: The personal space literature indicates that few studies address the issue of seating preference within classroom situations. Such neglect is surprising since observations reveal that students frequently select the same seats, suggesting that chair preference may be related to such factors as classroom size and/or personality factors.

Supporting the non-arbitrariness of seating preference, Gur, Sackeim, and Gur (1976) found that in lecture hall settings, students scoring highest on a measure of psychopathology tend to gravitate toward the back of the room. Concerning classroom activity, Sommer (1969) noted that in small classrooms, participation was concentrated in the front rows and decreased according to the student-teacher distance, with the majority of the participation coming from the center. This latter finding suggests the existence of a zone of participation in straight-row classrooms.

Additional support for a zone of participation is provided by Adams and Biddle (1970) in which they report that 63% of the participation in small classrooms came from the center. They note, "It is now possible to discriminate an area of the classroom that seems to be literally and figuratively the center of activity. This area extends from the front of the room directly up the center line, diminishing in intensity the farther away it is from the point of origin (p. 50)."

It is noted that those students within the zone of participation have the greatest possibility of eye contact with the instructor. Since previous research demonstrates a relationship between the length and/or direction of eye gaze in dyadic encounters and various traits (e.g. Argiye and Dean, 1965; Exline et al., 1961; Riemer, 1955), it is assumed that students sitting within the zone of participation may differ on a number of traits from those sitting outside the zone. It is the goal of this research to explore this assumption. Specifically, using Cattell's Sixteen Personality Factor Questionnaire Test (16PF), this study will attempt to define those personality traits which differentiate students sitting inside the zone (i.e. the center of the room) from those sitting outside the zone. The present research will aiso explore the possibility that personality traits may vary as a function of row choice.

3. Subjects: Eighty-one undergraduates participated in the study.

4. Procedure: Using the same 32 seat classroom, four classes were tested. Students were administered the 16PF followed by another questionnaire which contained a diagram of the classroom, and students were asked to indicate their occupied seat. If their occupied seat was not their preferred seat, students were also asked to indicate their preferred seat.

5. Results: Each seat was assigned a zone of participation (ZP) value. Given the findings by Sommer (1969) and Adams and Biddle (1970), ZP values were derived in the following manner. The center columns of seats were assigned values of four. Others were assigned values of three, two, or one, depending upon their

respective distances from the center. Middle rows were assigned values of three while the first and last rows were assigned values of two and one respectively. The sum of the row and column values determined each seat's ZP value. See Figure 1.

Using a Spearman rank-order correlation statistic, ZP values and row choices were then correlated with Cattell's Primary and Second-Order Factors. Before discussing these correlations, it should be mentioned that 48 students indicated that their occupied seat was their preferred seat (matching) while 33 students reported a discrepancy (non-matching). Given this, the data for these groups warrant separate analysis as it is assumed that the matching group provides the best indicator of seating preference. See Table 1.

Results indicate that those sitting toward the zone differ from those sitting away from the zone on factors C, ego strength (r_s = -.299, df = 46, p <.05); O, guilt proneness (r_s = .358, p <.02); and Second-Order Factor II, anxiety (r_s = .270, p <.10). On the basis of these factors, it appears that those sitting within the zone tend to be emotionally less stable, more easily upset, apprehensive, self-reproaching, insecure, and sensitive to people's approval and disapproval than those sitting outside the zone (Cattell et al., 1970).

Regarding personality traits as a function of row choice, significant correlations were obtained for Factors C, ego strength (r_s = -.368, p <.01); E, dominance (r_s = -.306, p <.05); N, shrewdness (r_s = .373, p <.01); Second-Order Factor I, extraversion (r_s = -.264, p <.10) and Second-Order Factor III, tough poise (r_s = -.411, p <.01). These correlations indicate

that those sitting toward the front of the room tend to be more emotionally stable, competitive, aggressive, assertive, forthright, unpretentious, gregarious, extraverted, and less prone to a great deal of fantasy activity than those sitting toward the back of the room (Cattell et al., 1970).

6. Implications and Conclusions: Previous research indicated that student participation was concentrated in the center of the room. It was therefore assumed that students sitting within this region differed on a number of traits from students sitting outside of this region. In addition to supporting this assumption, results indicated that personality traits varied as a function of row choice.

Specific findings indicated that students scoring lowest on Factor C (ego strength), and highest on Factors O (guilt proneness), and Anxiety tend to gravitate toward the zone of participation. Given the greater possibility of eye-contact with the professor, one intuitively might have expected the opposite finding. It is noted, however, that individuals scoring high on Factor O which loads heavily on Anxiety possess a strong sense obligation, are scrupulous, fussy, and sensitive to people's approval and disapproval (Cattell et al., 1970). Thus, the relationship between seating preference and Anxiety becomes clearer.

Apart from filling a gap in the personal space literature, these findings raise questions concerning the effects of forced or alphabetized seating. For example, what are the effects of assigning a low ZP seat to an individual who has a high need for approval? Can forced seating encourage and/or discourage classroom participation and satisfaction? Given the large

number of hours students spend in classrooms, additional research is clearly needed on these long neglected issues.

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FIGURE 1:

Diagram of the 32 seat classroom depicting individual ZP seat values

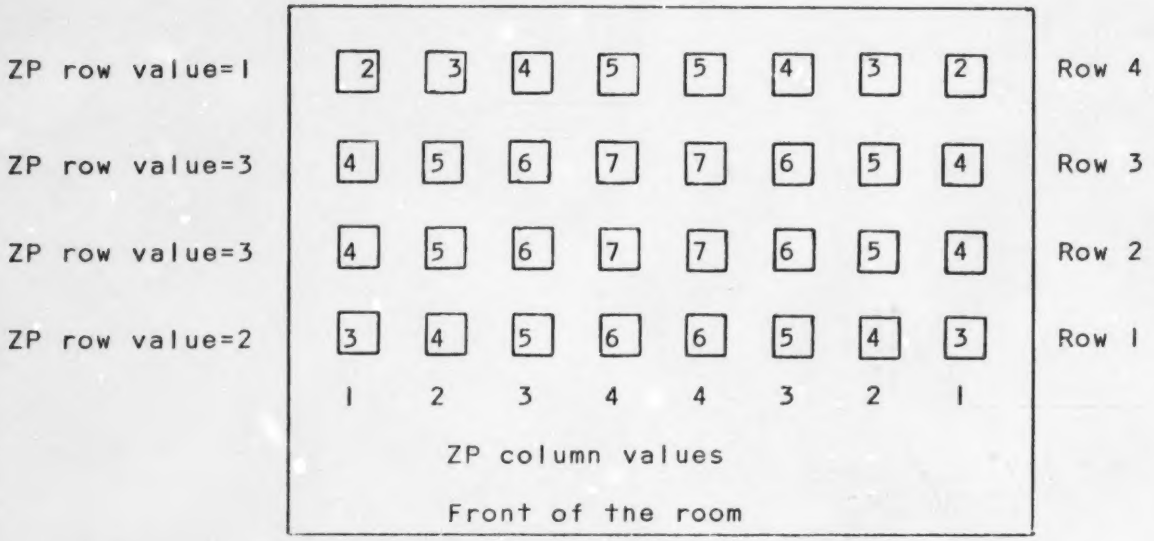
ZP row value=1
2 3 4 5 5 4 3 2
Row 4
ZP row value=3
4 5 6 7 7 6 5 4
Row 3
ZP row value=3
4 5 6 7 7 6 5 4
Row 2
ZP row value=2
3 4 5 6 6 5 4 3
Row 1
1 2 3 4 4 3 2 1
ZP column values
Front of the room

TABLE 1:

Correlations Between Cattell's Factors and ZP Values and Row Choices

Factors and High Score Descriptions		Total ZP	Total Row	Matching ZP	Matching Row
Primary					
Warmth	A	-.007	.087	-.020	.181
Intelligence	B	.179	-.014	.023	.060
Ego Strength	C	-.286****	-.004	-.299**	-.368****
Dominance	E	-.064	-.211*	-.077	-.306**
Impulsivity	F	-.075	-.049	-.050	-.127
Group-Conformity	G	.208*	-.004	.208	-.126
Boldness	H	-.042	-.064	-.115	-.231
Tender-Mindedness	I	.137	-.049	-.005	.080
Suspiciousness	L	.126	-.240**	.144	-.196
Imagination	M	.049	-.123	-.019	-.093
Shrewdness	N	.149	.015	.126	.373****
Guilt Proneness	O	.218*	-.223**	.358***	-.016
Rebelliousness	Q_1	.068	-.153	.048	-.114
Self-Sufficiency	Q_2	-.054	-.053	-.170	-.051
Compulsivity	Q_3	.070	-.015	.180	-.175
Free-Floating Anxiety	Q_4	.147	-.196	.200	-.062
Second-Order					
Extraversion		.014	-.048	.002	-.264*
Anxiety		.263***	-.239**	.270*	.126
Tough Poise		-.053	-.161	-.060	-.411****
Independence		-.068	-.110	-.097	-.228
Grade point average		.187	-.069	.177	-.014

*p < .10, two-tailed
**p < .05, two-tailed
***p < .02, two-tailed
****p < .01, two-tailed